

EXPERT WITNESS AND FINANCIAL FRAUD DETECTION IN THE PUBLIC SECTOR

**¹ENOFE, A. O.; ^{*2}AIGBEPUE, FAITH OCHUWA;
³IGBARUMAH, OMETERE HENRIETTA & ⁴IKPONMWONBA, NOSAREIMEN**

^{1,2,3 & 4}Department of Accounting,
Faculty of Management Sciences,
University of Benin,
Nigeria.

^{*2}faithyaigbepue@gmail.com, ³ometere81@gmail.com

Abstract

The broad objective of the study is to ascertain the role of expert witness investigation in detecting financial fraud in the Nigerian public sector. A survey research design used in this study was generated from primary sources using a questionnaire, which were distributed to obtain complete and accurate responses from the respondents. The data collected was analyzed using the statistical tools SPSS 20.0 to analyze the bio-data and Eviews 8.1 to analyze the responses from the respondents. The result of this study showed that forensic accountant as expert witness in court, expert witness experience and expert witness education all have a positive relationship with financial fraud detection. It is therefore recommended that there should be an increase in the use of forensic accountant as expert witness in the public sector to help in the detection of financial fraud.

Keywords: Financial fraud, Forensic accounting, Expert witness, Experience, Education

Introduction

In recent years, the increase in economic crimes has been pretty dramatic. Major cases have been reported in the world's media and sadly, the results of these cases have been damaging to both well-known organizations and individuals. Such reports of financial crime have prompted companies to devote increasing attention and financial resources to the areas of fraud prevention and detection. This has also driven the impetus for the development and expansion of investigation services by financial experts (Laws, 2015).

In the accounting profession, there is a particular area in which the integration of accounting, auditing and investigative skills is required. This area which is known as forensic accounting, is seen as the fastest growing discipline within the profession, and is an area that professionals focus on when looking at developing their client service offerings (Gbegi & Adebisi 2015). Forensic accountant concentrates on a multitude of different areas ranging from matrimonial divorce to large-scale frauds. There have been a number of well-documented and publicized fraud cases. Cadbury Nigeria for example sacked its Managing Director and the company's Finance Director as a result of the financial book padding scandal and corruption that recently rocked the company. The outcome of the investigation "has confirmed a deliberate overstatement of the company's financial position over a number of years to the tune of between N13 and N15 billion". This is Nigeria's version of the Enron Corporation scandal in the United States. Also the case of the suspended Director-General of the Pension Transitional Arrangement Directorate (PTAD) and three others that were arrested by the Economic and Financial Crimes Commission (EFCC) for a N2.5bn fraud which was allegedly on procurement fraud. Fraud according to O'zku and Pamukc (2012) is to enrich oneself by intentionally reducing the value/worth of an asset in secret.

There are many situations where the use of a financial expert would be beneficial. A forensic accountant plays an important role in the criminal investigation, and expert witnessing in the law court to assist the judge in understanding accounting language. Being an expert witness is a key attribute of a forensic investigator and it is essential that they are suitably trained and qualified to provide this service (US LEGAL, 2016). Forensic accounting is seen as a special area of accounting which helps in resolving these cases and this has been thought to provide a solution to the financial fraud (Eliezer & Emmanuel, 2015). In a case of fraud detection, a forensic accountant as expert witness may be asked to assess the findings of a financial investigation based on the analysis of documents, as well as evidence of Ponzi schemes, money laundering, and other systematic forms of financial fraud. In addition to public accounting, forensic accountants as expert witnesses are also licensed and certified in fraud examination, financial forensics, valuation analyzing, financial services auditing, anti-money laundering, and other related areas with the purpose of enforcing fraud prevention and regulatory compliance. (Eliezer & Emmanuel, 2015; Oladejo & Oluwaseun, 2015).

Statement of the Research Problem

Fraud has continued to occur in the public as well as the private sectors, these fraudulent practices occur under the guidance of the internal auditors. This led Ojaide (2000) to

emphasize the need for forensic accounting services in his work. Owojori and Asaolu (2009), Okoye and Gbegi (2013) have carried out researches over the years and postulated that the issue of fraud and fraudulent practices has been on the increase and it's becoming the norm. Modugu and Anyaduba (2013) in their study stated that perpetrators of fraud in the public and private sector take advantage of their office and they do so continuously due to the fact that the possibility of detection is low. Therefore, forensic accounting is expected to stem the tide of financial crimes. A number of studies in Nigeria have looked at how forensic accounting, internal control, and fraud auditing have helped in detecting fraud (Modugu & Anyaduba, 2013; Okoye & Gbegi, 2013; Ezejiolor, Nwakoby & Okoye, 2016). There has been little research on the role of forensic accounting expert witness, experience of the forensic accountant as well as his education in the detection of financial fraud. Consequently, the study fills this gap by investigating how forensic accountants as expert witness help in the detection of financial fraud.

Research Questions

Having previewed the research problem, the following questions will be asked to help bring out the research problem to be tackled in this study:

1. To what extent can expert witness investigation be a useful tool for fraud detection in the public sector?
2. In what way can expert witness experience help in financial fraud detection?
3. How can expert witness education/training help in detecting financial fraud in the public sector?

Objective of the Study

The broad objective of the study is to ascertain the role of expert witness in detecting financial fraud in the public sector in Nigeria. Specifically, the research objectives are to:

1. Determine if the use of expert witness investigation can help in financial fraud detection in the public sector;
2. Ascertain how expert witness experience can help in detecting financial fraud; and
3. Examine how expert witness education/training can help in detecting financial fraud in the public sector.

Research Hypotheses

Flowing from the above, the hypotheses which will be tested in order to achieve the objective of this study will be stated below in the null form:

H₀₁: There is no relationship between expert witness investigation and financial fraud detection in the Nigerian public sector.

H₀₂: There is no relationship between expert witness experience and financial fraud detection in the public sector.

H₀₃: There is no relationship between expert witness education/training and financial fraud detection in the public sector.

Literature Review

Financial Fraud Detection

The public sector comprises of organizations which are under the control of the public as against private ownerships (Bammeke, 2008; Popoola, Che-Ahmad & Samsudin, 2014). They were created on behalf of the public and include federal government, state government, federal statutory bodies, state statutory bodies, local government; the main purpose of the public sector is the provision of services where maximization of profit is not a major motive. Markić (2014), in his research of the behaviour of the public sector stressed that there are two basic features of the public sector in relation to the private sector. He stated that those in government employment have a habit of serving two or more masters and they are expected to achieve multiple objectives.

Dada, Owolabi and Okwu (2013) in a study conducted, summarized the concept of fraud as any form of unscrupulous actions that bestow excessive benefit on individuals in position of power, which results in efforts to secure riches through illegal means. This includes such practices like bribery, fraudulent practices, embezzlement, partiality and other sharp practices.

Computer fraud can be referred to as the use of a computer to create a dishonest misrepresentation of fact as an attempt to induce another to do or refrain from doing something which causes loss. Public officials create false perversion in some ways, altering computer input, deleting input to pave way to embezzlement (Legal Information Institute, 2006).

Forensic Accounting Expert Witness and Financial Fraud Detection

According to Gerald and Kathleen (2005) “an expert witness is a person who is a specialist in a subject, often technical, who may present his/her expert opinion without having been a witness to any occurrence relating to the lawsuit or criminal case. An expert witness is a witness who has knowledge beyond that of the ordinary lay person enabling him/her to give testimony regarding an issue that requires expertise to understand (Laws, 2015). It is an exception to the rule against giving an opinion in trial, provided that the expert is qualified by evidence of his/her expertise, training and special knowledge (Laws, 2015).

A forensic accountant has the ability to provide a professional, objective and independent opinion on matters within his field (Winch, 2007). Forensic accountants have been carrying out these duties but the high profile cases of Cadbury Nigeria Fraud and Police Pension Fund fraud of conspiracy, breach of trust and embezzlement of N32.8 billion scandals has made the role of the forensic accountant more important in the Nigerian public sector. By utilizing their

accountancy skills, a forensic accountant can work to the detailed instructions of the lawyers to collate and analyze evidence. They will then draw appropriate conclusions and can present those conclusions in writing and in person at trial in a format that would be understandable to a jury. Golden, Skalak and Clayton (2006) believe that the findings and recommendations of a forensic accounting investigator may form the basis of testimony in litigation proceedings or criminal actions against the perpetrators, and therefore form an integral part of the investigation.

Expert Witness Experience and Financial Fraud Detection

Forensic accounting positions require at least one to three years of accounting experience. Many Forensic Accountants obtain this experience by working as a general accountant. Some responsibilities unique to forensic accountants include, performing forensic research to track funds and identify assets for recovery, conducting forensic analysis of financial data, preparing forensic accounting reports from financial findings, preparing analytical data for litigation and testifying as needed (Association of Certified Fraud Examiners, 2017).

Companies lose huge amount of funds to fraud yearly and one way this can be addressed is the use or employment of forensic accounting expert with the requisite experience. An experienced forensic expert can assist companies in dealing with circumstances where fraud has occurred as well as for failures of internal control system. An experienced forensic accounting expert according to Averet (2017) can provide among others “investigation services, recovery of losses, pre-investigative consulting and being able to quantify the damage sustained by fraudulent misconduct, they can resolve dispute before they get to the courtroom”. Experienced forensic accountants in conjunction with attorneys can uncover, analyze and compile relevant data into a comprehensive report, which can provide cases with solid financial evidence. Averett (2017) stipulated that forensic professionals have experience conducting internal investigations and installing effective fraud deterrence systems. They know what patterns to look for in the data of an organization, and they can identify the key behavior patterns and psychological profiles of people who are likely to commit fraud (Gerald & Kathleen, 2005). Due to the fact that frauds that are perpetrated occur with the use of computers, has made forensic accountants focus on this area and in turn having extensive experience evaluating business processes and internal controls to identify weaknesses and suggest improvements. They have experience across all industries and are uniquely qualified to identify fraud risks and fraudulent activities in their industry of expertise. They can provide effective fraud prevention measures for businesses of all sizes. If the prevention of fraud fails, forensic accountants can assist in identifying how the fraud occurred, mitigate damage and ensure safeguards to prevent future fraudulent acts from arising (Averett, 2017).

Expert Witness Education/Training and Financial Fraud Detection

Forensic Accountants need more and efficient technical knowledge necessary to perform effective investigations. In contrast to auditors, who typically take a more consistent and standardized approach to their work, Forensic Accountants must determine which areas, people or functions of the organization require their attention. Because fraud is usually

hidden, this process can be difficult and time consuming. To become a certified fraud examiner, a forensic accountant must possess the requisite credential which ensures forensic accountants have advanced knowledge of typical fraud schemes and data analysis techniques so that they can perform investigations efficiently and strategically (KPMG, 2017). Krell (2002) says forensic accounting often involves an exhaustive, detailed effort to penetrate concealment tactics, the magnitude of effort, time and expense required to do a single, focused forensic investigation in contrast to auditing a set of the financial statements, the difference is incredible. The above views imply that the role of professional forensic accountants is different from that of other accountants. They are different in their further education and training of years of experience. In addition, forensic accountant, are closer to being investigators, economists who do economic and market estimation and appraisers-who are typically trained in finance or valuation theory in business (Okoye & Gbegi, 2013).

Education is good in designating a high degree of professional expertise in rather specialized areas, but further graduate education and continuing education programs in more general fields would be better. More specifically, entry-level fraud and forensic accounting professional should possess knowledge, skills and abilities in the areas of criminology specifically oriented to the nature, dynamics, and scope of fraud and financial crimes; the legal, regulatory, and professional environment; and ethical issues; fraud prevention, deterrence, detection, investigation and remediation in the following areas: asset misappropriation, corruption, and false presentations, financial statement fraud; and fraud, and forensic accounting in a digital environment, including computer-based tools and techniques for detection and investigation (Houck, Kranacher, Moris & Robertson, 2006).

Considering the above views, it seems that forensic accounting plays a significant role in preventing and detecting possibilities of fraudulent financial reporting. It can be seen as an attainable effort to improve quality alternative research in accounting.

Empirical Framework

Gbegi and Adebisi (2015) conducted a study examining fraud in the public sector and how it affects performance with a view to emphasizing the need for forensic accounting. The population of this study comprised of 190 senior staff of the three Anti-Corruption Agencies in Nigeria (EFCC, ICPC, and CCB) with the sample size of 129. The study methodology includes both primary and secondary sources of data collection; questionnaire was used in collecting primary data while secondary data were obtained from EFCC, CCB and ICPC. The data for this study were analyzed using simple percentages and presented in tabular form while the hypotheses were tested using Analysis of variance (ANOVA) and regression analysis with the aid of SPSS version 20.0. The findings showed that, first, Public sector fraud has significant effect on economic growth in Nigeria, and second, there is positive and significant influence between the use of forensic accounting and financial fraud detection in Nigeria. Chi-chi and Ebimobwei (2012) examined the effect of forensic accounting services in fraud detection. The primary data was collected with the help of a well-structured questionnaire of three sections administered to twenty-four banks in Port Harcourt, the capital of Rivers State and the data collected from the questionnaire were analyzed with descriptive

statistics, Augmented Dickey-fuller, Ordinary Least Square and Granger Causality. The result of their findings reveals that the application of forensic accounting services affects the level of fraudulent activities of banks and therefore concludes that forensic accounting services provide banks with the necessary tools to deter fraudulent activities.

Mukoro, Yamusa and Faboyede (2014) explore the relevance of forensic accounting in detecting and curbing crime and corruption in public sector via the application of forensic skills using a questionnaire designed to generate concise and precise answers from the respondents using close-ended questions. The responses to the questionnaire copies were processed using electronic statistical package (SPSS) via regression analysis as a parameter to determine the effects on the variables under study. A total of 100 questionnaire copies were administered to the selected staff of the Federal Inland Revenue Service, Lagos. It was found out that forensic accounting plays a significant role in curbing crime and corrupt practices in any public sector since it provides a mechanism to hold people accountable, such that those who manage resources in a fiduciary capacity do not easily abuse that trust without detection. Oladejo and Oluwaseun (2015) also carried out a similar study using questionnaire to collect data; these data were analyzed using descriptive statistic tool. Hypotheses were tested through chi-square statistics to examine relationship between forensic accounting and fraud detection, forensic accounting technique as a means of fraud reduction. The result of the findings shows that Forensic Accounting is significantly useful in fraud control and reduction in the Nigeria public sector and positively influences performance.

Osunwole, Adeleke and Henry (2015) in a similar research on forensic accounting being the antidote to fraud, administered questionnaire to collect data from sixty respondents, analyzing the data using linear regression, found out that the use of forensic accounting is a major mechanism in detecting and preventing fraud. Omar, Mohammed, Jomitin and Haron (2013) conducted a study to determine the relevance of the implementation of forensic accounting in the public sector, structured interviews and 50 questionnaires were distributed and collected from three selected government agencies in the Klang Valley. The result showed that government administrator understands the role of forensic accountants and believe that the existence of forensic accounting is a financial strategy to curb and resolve the financial fraud and crime in Malaysian economy. Modugu and Anyanduba (2013) in a study on forensic accounting and fraud distributed questionnaires to 143 respondents consisting of accountants, management staffs, practicing auditors and shareholders. The simple random technique was utilized in selecting the sample size, while the binomial test was employed in the data analysis. The findings of the study indicate that there is significant agreement amongst stakeholders on the effectiveness of forensic accounting in fraud control, financial reporting and internal control quality.

Methodology

The survey research design was adopted in this study. Data was primarily collected through the administration of questionnaire, to federal, state and local government staffs, and the general public which therefore is the population of the study.

Research Design

This research utilizes survey research design for the study, the design involves the collection of data through questionnaire, and this questionnaire will give the respondents a high level of confidence by being anonymous in completing the questionnaire. A total of 90 questionnaire was administered to respondents and this number would be taken as the sample size, arrived at through convenience sampling. The likert scale will be used and it is expressed as: **SA**-strongly agree (5), **A**-Agree (4), **U**-Undecided (3), **Disagree** (2), **SD**-Strongly disagree (1). The questionnaire will be divided into two sections. Section A will look at the bio-data of the respondents while section B addresses the issues of the role of forensic accounting expert witness in detecting financial fraud in the public sector.

Model Specification

The model of this study is a modification of the model used by Modugu and Ayanduba (2013). They examined the role of forensic accounting in curtailing fraud in Nigeria. The model as used by Modugu and Anyaduba (2013) will be modified with the replacement of the variables with expert witness experience and expert witness education; given the view that these will be more effective in this study. The model for this study is stated in its functional form below:

$$FFD = f (EXPI, EXPE, EXPEDT)$$

However, in order to take into account the deterministic and stochastic aspect of the model it is therefore stated in an econometric form:

$$FFD = \beta_0 + \beta_1 EXPI_i + \beta_2 EXPE_i + \beta_3 EXPEDT_i + \mu_i$$

Where,

FFD= Financial fraud detection

EXPI= Expert Witness Investigation

EXPE= Expert Witness Experience

EXPED= Expert Witness Education/Training

$\beta_0, \beta_1, \beta_2, \beta_3$, are coefficients

A priori signs $\beta_1 > 0, \beta_2 > 0, \beta_3 > 0$

Data Presentation and Analysis

Table 1 Sex distribution

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	48	60.0	60.0	60.0
Female	32	40.0	40.0	100.0
Total	80	100.0	100.0	

Table 1 above reveals that 48 of the respondents are male while 32 are female given a percentage of 55.8% and 44.2% respectively.

Table 2 Age Distribution

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 20-24 years	15	18.8	18.8	18.8
25-29 years	33	41.2	41.2	60.0
30-35 years	19	23.8	23.8	83.8
36 years and above	13	16.2	16.2	100.0
Total	80	100.0	100.0	

Table 2 above displays the age distribution of the respondents. 15 of the respondents representing 18.8% of the total respondents were between the ages of 20-24 years, 33 were between 25-29 years, 19 were between 30-35 years, and 13 were between 36 years and above. These represent 41.2%, 23.8%, and 16.2% respectively.

Table 3 Years in employment

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1-3	17	21.2	21.2	21.2
4-6	10	12.5	12.5	33.8
7-9	37	46.2	46.2	80.0
10-12	16	20.0	20.0	100.0
Total	80	100.0	100.0	

Table 3 above shows the number of years the respondents have been in employment

Table 4 Employment Status

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Self Employed	20	25.0	25.0	25.0
Federal Employment	5	6.2	6.2	31.2
State Employment	27	33.8	33.8	65.0
Local Employment	28	35.0	35.0	100.0
Total	80	100.0	100.0	

Table 4 above shows the employment status of the respondents. 20 out of the total respondents are self-employed, 5 are under federal employment, and 27 are under state employment while 28 are under local government employment. These represent 25.0%, 6.2% and 33.8% and 35.0% respectively.

Table 5 Regression Analysis

Dependent Variable: FFD

Method: Least Squares

Date: 07/06/17 Time: 20:20

Sample (adjusted): 2 81

Included observations: 81 after adjustments

Convergence achieved after 7 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EXPW	0.986536	0.862190	2.144222	0.0252
EXPE	0.097080	0.227964	2.525858	0.0411
EXPEDT	1.353368	0.726124	1.863823	0.0653
C	18.41085	19.55693	0.941398	0.3487
AR(1)	0.360867	0.093707	3.851010	0.0002

R-squared	0.556804	Mean dependent var	-0.673631
Adjusted R-squared	0.278402	S.D. dependent var	24.76927
S.E. of regression	23.51953	Akaike info criterion	9.224101
Sum squared resid	55870.01	Schwarz criterion	9.421631
Log likelihood	-494.7135	Hannan-Quinn criter.	9.304207
F-statistic	2.683194	Durbin-Watson stat	1.961959
Prob(F-statistic)	0.013687		

Inverted AR Roots .36

Source: Eviews, 8.1

The regression output in table 5 shows the effect of the independent variables on the dependent variable. The R-Squared value is 0.556804 showing that 56% of systematic variations in financial fraud detection are explained by the independent variables. The result revealed that expert witness investigation has a positive relationship (0.986536) with financial fraud detection and the relationship is significant. Expert witness experience was found to have a positive relationship (0.097080) with FFD and the relationship was found to be significant. Forensic accounting expert education/training was also found to have a positive relationship (1.353368) with FFD and this relationship was found to be significant. These findings are in tandem with those of other authors (Gbegi & Adebisi, 2015; Modugu & Anyanduba, 2013; Mukoro, Yamusa & Faboyede, 2014).

The Durbin-Watson statistics of 1.961959 which is approximately 2 is an indication of the absence of auto correlation in the model.

Table 6: Descriptive Statistics

	FFD	EXPW	EXPE	EXPEDT
Mean	17.25301	16.84337	17.49398	18.57831
Median	17.00000	17.00000	17.00000	18.00000
Maximum	25.00000	25.00000	25.00000	27.00000
Minimum	12.00000	12.00000	12.00000	12.00000
Std. Dev.	3.122864	3.167987	3.572843	3.728992
Skewness	0.568307	0.866723	0.643428	0.313208
Kurtosis	2.858715	3.385219	2.602508	2.219840
Jarque-Bera	4.536823	10.90491	6.273409	3.461953
Probability	0.103476	0.004286	0.043426	0.177111
Sum	1432.000	1398.000	1452.000	1542.000
Sum Sq. Dev.	799.6867	822.9639	1046.747	1140.241
Observations	83	83	83	83

The descriptive statistics of the variables used in the analysis is presented in Table 6 above. It explains the range, minimum, maximum, mid values, spread and normality of the variables. Financial fraud detection in the public sector has a mean value of 17.25301 and shows the average of it has a maximum value of 25.00000 and a minimum value of 12.00000 revealing a large variation. FFD has a positive skewness with a value of 0.568307 and is normally distributed at 4.536823. The mean values of all the explanatory variables are positive.

The Jacque-Bera probabilities with p 0.05 is an indication that all the variables are not normally distributed.

Summary of findings

Having presented the statistical analysis of our results, we hereby present our findings as follows:

It was found out that forensic accountant as expert witness has a positive and significant relationship with financial fraud detection in the public sector.

The experience of a forensic accountants as expert witness was found to have a positive and significant relationship with financial fraud detection, which goes to indicate that the years spent as a forensic accountant will lead to the detection of fraud in the public sector, and also;

The forensic accountant's education/training was found to have a bearing in detecting the occurrence of fraud. This implies that having the requisite knowledge is vital for forensic accountants to carry out their duties effectively.

Conclusion and Recommendation

The importance of forensic accountant as expert witness cannot be underestimated as they perform increasing and demanding roles in today's business world. Due to the nature of most financial crimes, the need for these kinds of roles will continue to grow. Successful forensic accountants know the characteristics of fraud schemes and understand how they are perpetrated, and this enables them to perform their investigation or fraud prevention programs very well. Investment in prevention and detection methods and tools is paramount in the fight against fraud in the Nigerian public sector. Unfortunately, due to the complexities of the public sector governance, the chances of fraud cases will continue to rise, forensic accountant as expert witness will still be required to investigate, cases will continue to be put before a court for prosecution, and regulatory bodies will bring out more requirements. The study recommends based on the findings that the services of forensic experts be utilized as expert witness in litigation proceedings. Also, the experience and education of such a forensic expert should be considered and reviewed before engaging their services due to the fact that more educated, experienced forensic experts will be able to detect the occurrence of fraud.

References

- Association of Certified Fraud Examiners, (2017). Forensic accountant. Retrieved from <http://www.acfe.com/career-path-forensic-accountant.aspx> on 04/06/2017
- Averett, W. (2017). Forensic accounting and fraud detection. Retrieved from <http://warrenaverett.com/services/technology-and-risk-solutions/forensic-services/> on 04/06/2017.
- Bammeke, S.A. (2008). *Public sector accounting and finance for decision making*. Lagos: SAB and Associates Ltd.
- Chi-chi, O. A., & Ebimobowei, A. (2012). Fraudulent Activities and Forensic Accounting Services of Banks in Port Harcourt, Nigeria. *Asian Journal of Business Management*, Vol. 4(2), pp.124–129.
- Dada, S. O., Owolabi, S. A., & Okwu, A. T. (2013). Forensic accounting a panacea to alleviation of fraudulent practices in Nigeria. *International Journal of Business Management and Economic Research*, 4(5), 787-792
- Eliezer, O., & Emmanuel, B. (2015). Relevance of forensic accounting in the detection and prevention of fraud in Nigeria. *International Journal of Accounting Research*, 2(7), 67-77
- Ezejiofor, R. A., Nwakoby, N. P., & Okoye, J. F. N. (2016). Impact of forensic accounting on combating fraud in Nigerian banking industry. *International Journal of Academic Research in Management and Business*, 1(1), 1-19.
- Gerald N. Hill and Kathleen T. Hill (2005). Expert witness. Retrieved from <http://legal-dictionary.thefreedictionary.com/expert+witness> on 01/09/2016
- Gbegi, D. O., & Adebisi, J. F. (2013). Forensic accounting skills and techniques in fraud investigation in the Nigerian public sector. *Mediterranean Journal of Social Sciences*, 5(3), 243-252.
- Golden, T.W., Skalak, S.L., Clayton, M. M., & Pill, J. S. (2006). A guide to forensic accounting investigation. John Wileys and sons ltd.
- Houck, M., Kranacher, M., Moris B., & Robertson, J. (2006). Forensic accounting as an investigative tool: Developing and model curriculum for fraud and forensic accounting (ethnics). *The CPA Journal*, 12(5), 2-13.
- Krell, E. (2002). Will forensic accounting go mainstream?'' *Business Finance Journal*, 8(5), 34-46.
- Laws (2015). Forensic Expert Witness Role. Retrieved from <http://trial.laws.com/witness/forensic-expert-witness> on 1/09/2016

- Legal information institute. (2006). Computer fraud: An overview. Retrieved from https://www.law.cornell.edu/wex/computer_and_internet_fraud
- Markić, D. (2014). A review on the use of performance indicators in the public sector. *TEM Journal*, 3(1), 22-28.
- Modugu, K. P., & Anyaduba, J. O. (2013). Forensic Accounting and Financial Fraud in Nigeria : An Empirical Approach. *International Journal of Business and Social Science*, 4(7), 281–289.
- Mukoro, D. O., Yamusa, O., & Faboyede, S. O. (2014). The Role of Forensic Accounting in Fraud Detection and National Security. *Journal of management Research*. 5(1), 40-47.
- Ojaide, F. (2000). *Frauds detection and prevention: The case of pension accounts ICAN News*. January/ March p.8
- Okoye, E. I., & Gbegi, D. O. (2013). Forensic Accounting: A Tool for Fraud Detection and Prevention in the Public Sector. (A Study of Selected Ministries in Kogi State). *International Journal of Academic Research in Business and Social Sciences*, 3(3), 1-19.
- Oladejo, M. O., & Oluwaseun, Y. (2015). Impact of forensic accounting on fraud reduction in the Nigerian banking sector. *Journal of Accounting and Finance*, 1(3), 12-22.
- Omar, N. B., Mohamed, N., Jomitin, B., & Haron, R. (2013). The Relevance of Forensic Accounting in Public Sector (A study of Selected Government Agencies in Klang Valley). *International Conference of Financial Criminology*, (28-29 May), 1–14.
- Osunwole, O.O., Adeleke, K.M., & Henry, P.K. (2015). Forensic Accounting: An antidote to fraud in Nigeran Deposit Money Banks. *International Journal in Management and Social Science*. 3(4), 88-95.
- Owojori, A. A., & Asaolu, T. O. (2009). The role of forensic accounting in solving the vexed problem of corporate world. *European Journal of Scientific Research*. 29(2), 123-130.
- O' zkul, F. U., & Pamukc,u, A. (2012). Fraud detection and forensic accounting. Retrieved from <http://www.springer.com/978-3-642-20825-6>
- Popoola, O. M., Che-Ahmad, A., & Samsudin, R. S. (2014). Forensic Accounting and Fraud: Capability and Competence Requirements in Malaysia. *Journal of Modern Accounting and Auditing*, 10(8), 825-834.
- USLEGAL. (2016). Expert witness and legal law. Retrieved from <http://definitions.uslegal.com/e/expert-witness/> on 1/09/2016
- Winch, D. (2007). *Finding and using a forensic accountant*. Retrieved from <http://www.accountingevidence.com/documents/articles/forensic%20accountant1.pdf>

APPENDICES

QUESTIONNAIRE

Topic: Expert witness and financial fraud detection in the public sector

Section A

Instruction

Please tick or mark (√) in the boxes provided or fill where appropriate.

1. Sex: Male Female
2. Age: 20- 24 25 - 29 30 – 35 36 – above
3. Educational Qualification: WASCE , OND / NCE , B.SC / B.A M.SC / PHD
4. Employment status: Self employed Private employee Public service employee
Not Employed

Section B: Questions to Test the Study Hypotheses

Code: SA- strongly agree, **A-** Agree, **U-** Undecided, **D-** Disagree, **SD-**Strongly disagree

Financial Fraud detection

1. Forensic accounting can be used to locate diverted funds or assets
SA A U D SD
2. Forensic Accounting is solely enough as a tool to detect suspicious or fraudulent transactions in the public sector
SA A U D SD
3. Forensic accounting is effective as a tool for detecting financial fraud that is prevalent in the public sector
SA A U D SD

Expert Witness

4. Forensic accountants as expert witness can help in identifying misappropriated assets
SA A U D SD
5. Forensic accountants as expert witness can be the deciding factor in the fight against financial fraud by officials occupying positions of authority
SA A U D SD
6. A forensic accounting expert witness can help in the assessment of the occurrence of fraud through analysis of the fraudulent documents
SA A U D SD

Forensic Accounting Expert Witness Experience

7. Experience in performing regular forensic audit can vital for detecting fraud in the public sector
SA A U D SD
8. Experience forensic experts can discover irregularities by improve efficiency and identifying areas where fraud related activities can take place

SA [] A [] U [] D [] SD []

9. Experienced forensic experts are able to work in complex regulatory and litigation environment

SA [] A [] U [] D [] SD []

Forensic Accounting Witness Education

10. Forensic accountant having the requisite knowledge can help in detecting and preventing fraud.

SA [] A [] U [] D [] SD []

11. Forensic accountants being experts in financial fraud matters with special knowledge on legal matters can help in detecting and preventing fraud.

SA [] A [] U [] D [] SD []

12. Advanced knowledge of typical fraud schemes and data analysis techniques can help forensic accountants in fraud investigations and this can help detect and prevent financial fraud.

SA [] A [] U [] D [] SD []

Table 4.1 Sex distribution

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	48	60.0	60.0	60.0
Female	32	40.0	40.0	100.0
Total	80	100.0	100.0	

Table 4.2 Age Distribution

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 20-24 years	15	18.8	18.8	18.8
25-29 years	33	41.2	41.2	60.0
30-35 years	19	23.8	23.8	83.8
36 years and above	13	16.2	16.2	100.0
Total	80	100.0	100.0	

Table 4.3 Years in employment

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1-3	17	21.2	21.2	21.2
4-6	10	12.5	12.5	33.8
7-9	37	46.2	46.2	80.0
10-12	16	20.0	20.0	100.0
Total	80	100.0	100.0	

Table 4.4 Employment Status

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Self Employed	20	25.0	25.0	25.0
Federal Employment	5	6.2	6.2	31.2
State Employment	27	33.8	33.8	65.0
Local Employment	28	35.0	35.0	100.0
Total	80	100.0	100.0	

Table 4.5 Regression Analysis

Dependent Variable: FFD

Method: Least Squares

Date: 07/06/17 Time: 20:20

Sample (adjusted): 2 81

Included observations: 81 after adjustments

Convergence achieved after 7 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FWIT	0.986536	0.862190	2.144222	0.0252
FEXP	0.097080	0.227964	2.525858	0.0411
FEDU	1.353368	0.726124	1.863823	0.0653
C	18.41085	19.55693	0.941398	0.3487
AR(1)	0.360867	0.093707	3.851010	0.0002

R-squared	0.556804	Mean dependent var	-0.673631
Adjusted R-squared	0.278402	S.D. dependent var	24.76927
S.E. of regression	23.51953	Akaike info criterion	9.224101
Sum squared resid	55870.01	Schwarz criterion	9.421631
Log likelihood	-494.7135	Hannan-Quinn criter.	9.304207

F-statistic	2.683194	Durbin-Watson stat	1.961959
Prob(F-statistic)	0.013687		

Inverted AR Roots	.36
-------------------	-----

Source: Eviews, 8.1

Table 4.6: Descriptive Statistics

	FFD	FWIT	FEXP	FEDU
Mean	17.25301	16.84337	17.49398	18.57831
Median	17.00000	17.00000	17.00000	18.00000
Maximum	25.00000	25.00000	25.00000	27.00000
Minimum	12.00000	12.00000	12.00000	12.00000
Std. Dev.	3.122864	3.167987	3.572843	3.728992
Skewness	0.568307	0.866723	0.643428	0.313208
Kurtosis	2.858715	3.385219	2.602508	2.219840
Jarque-Bera	4.536823	10.90491	6.273409	3.461953
Probability	0.103476	0.004286	0.043426	0.177111
Sum	1432.000	1398.000	1452.000	1542.000
Sum Sq. Dev.	799.6867	822.9639	1046.747	1140.241
Observations	83	83	83	83